

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 12, 19-23, 25-26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gros (US 7,312,255).

Considering Claims 1, 12, 25-26: Gros teaches a UV –hardenable coating mixture (3:29) comprising a water-dispersible, free-radically polymerisable compound (3:55), water (3:54), and an electrically conductive pigment (4:1-5). A suitable conductive pigment is copper (9:55).

With regard to the claimed resistivity, Gros teaches that in order to achieve a weldable coating for electric welding a content of electrically conducting constituents is necessary, which ensures the minimum electrical conductivity necessary for welding (2:1-10). Therefore, it is understood that Gros teaches the claimed resistivity, ie a resistivity no greater than  $10^{-2}$  ohm/square. Alternatively, the experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. MPEP 2144.05. Increasing the amount of conducting particles will increase the conductivity, which Gros teaches is desirable in order for the material to be weldable.

Considering Claims 2-3: Gros teaches the binder comprising an oligomer, pre-oligomer, polymer, or pre-polymer (6:1-5).

Considering Claim 5: Gros teaches the binder being a urethane acrylate or epoxy acrylate (6:10-20).

Considering Claims 19-21: Gros teaches conductive pigment present at 40 to 48 wt. % (11:25-30).

Considering Claims 22-23: Gros teaches water present from 15 to 40 wt. % (11:15-20).

### ***Allowable Subject Matter***

Claims 4, 6-10, 13-18, 27-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 24, 29-30 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: Claims 4, 24, and 29 require a combination of water-soluble oligomer or prepolymer, water-soluble monomer, and water-insoluble monomer in combination with an electrically conductive material that is not known nor rendered obvious from the prior art.

### ***Response to Arguments***

Applicant's arguments filed 3/3/10 have been fully considered but they are not persuasive.

In response to applicant's arguments that it is necessary to make a selection among the various possible electrically conducting pigments is insufficient for anticipation, when a species is clearly named, the species claim is anticipated no matter how many other species are additionally named. MPEP 2131.02.

In response to applicant's arguments that there is no teaching or suggestion that the composition have the claimed resistivity, Gros requires that in order to achieve a weldable coating for electric welding a content of electrically conducting constituents is necessary, which ensures the minimum electrical conductivity necessary for welding (2:1-10). While not all values of electrical conductivity suited to welding applications will necessarily be within the claimed resistivity, Gros teaches that the hardened dry film should have an electrical resistance that is as far as possible less than 250 microohms (14:55-56). While this value is not expressed as ohms/square, as claimed, there is a reasonable expectation that they will sufficiently overlap.

In response to applicant's arguments that any experimental optimization of Gros would not result in the claimed compound, it is noted that the compound as claimed is not relegated to an ink, but an energy-curable coating composition. Furthermore, all that is required is that the prior art composition be capable of serving as an ink, it need not be taught to be an ink. Insofar as the prior art and instant composition have not been patentably distinguished, it is understood that the prior art is capable of serving as an ink.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NOAH FRANK whose telephone number is (571)270-3667. The examiner can normally be reached on M-F 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Marc S. Zimmer/  
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